

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

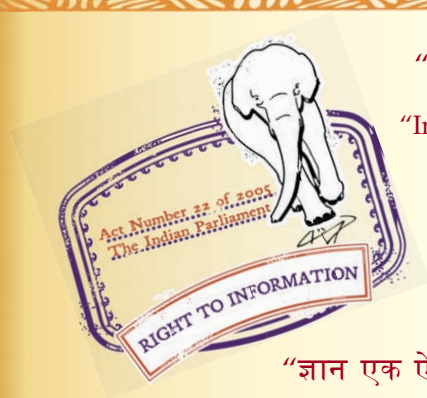
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11794-2-1 (1986): Laminations for transformers and inductors for use in telecommunication and electronic equipment, Part 2: Preferred ranges of laminations, Section 1: Lamination Type YEI-1 [LITD 5: Semiconductor and Other Electronic Components and Devices]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR
LAMINATIONS FOR TRANSFORMERS AND INDUCTORS
FOR USE IN TELECOMMUNICATION AND
ELECTRONIC EQUIPMENT

PART 2 PREFERRED RANGES OF LAMINATIONS

Section 1 Lamination Type YEI-1

1. Scope — Covers dimensions and tolerances together with the effective parameters of laminations of type YEI-1.

2. Description — This is an economy range of laminations, allowing scrapless punching, for power transformers. The dimension of side a of this range varies from 30 to 150 mm and the ratio of lamination area (A_F) to window area (A_W) is 4.0 where:

$$A_F = a(b + f) - (A_W)$$

$$A_W = c(e - d)$$

3. Dimensions and Effective Parameters — Dimensions and effective parameters are given in Table 1.

EXPLANATORY NOTE

This standard is being issued in two parts : Part 1 covering general requirements and tests and Part 2 covering preferred ranges of laminations. Part 2 has the following sections :

- Sec 1 Lamination type YEI-1
- Sec 2 Lamination type YEx-2
- Sec 3 Lamination type YED-2
- Sec 4 Lamination type YEx-3
- Sec 5 Lamination type YEx-4
- Sec 6 Lamination type YUI-1
- Sec 7 Lamination type YM-1

This standard (Part 2/Sec 1) should be read in conjunction with IS : 11794 (Part 1)-1986 'Specification for laminations for transformers and inductors for use in telecommunication and electronic equipment : Part 1 General requirements and tests'.

The effective parameters given in this standard (Part 2/Sec 1) are based on a stacking factor α of 0.95 and a stacking height equal to d . For calculation in the case of different stacking factors, see 9.2.2 of IS : 11794 (Part 1)-1986.

In the table of dimensions and parameters, the direction of rolling in the case of grain-oriented material has been indicated by a double-arrow.

This standard is based, without any technical change, on IEC Pub 740 (1982) 'Laminations for transformers and inductors for use in telecommunication and electronic equipment', issued by the International Electrotechnical Commission (IEC).

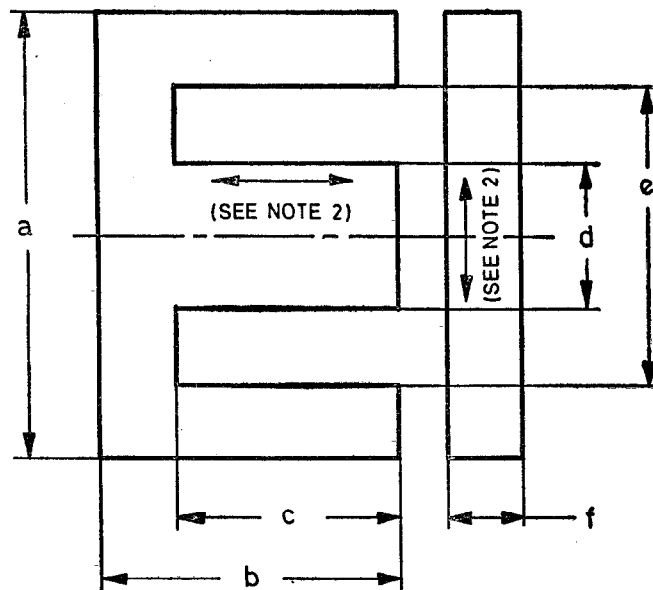
Adopted 28 July 1986

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TABLE 1 DIMENSIONS AND PARAMETERS OF LAMINATION TYPE YEI — 1
(Clause 3)

All dimensions in millimetres.



Designation	Reference Letter and Tolerance Code [see Table 4 of IS : 11794 (Part 1)-1986*]						Effective Parameters			
	$\pm \frac{1}{2} IT12$	$\pm \frac{1}{2} IT12$	$\pm \frac{1}{2} IT12$	$\pm \frac{1}{2} IT12$	$\pm \frac{1}{2} IT14$	$\pm \frac{1}{2} IT12$	Core Area A_{Fe}	Magnetic Path Length l_{Fe}	Core Volume V_{Fe}	Core Constant C_1
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
							mm ²	mm	cm ³	cm ⁻¹
YEI 1-10	30	20	15	10	20	5	95	60	5.70	6.32
YEI 1-13	38.4	25.6	19.2	12.8	25.6	6.4	156	77	12.0	4.94
YEI 1-14	42	28	21	14	28	7	186	84	15.6	4.51
YEI 1-16	48	32	24	16	32	8	243	96	23.3	3.95
YEI 1-18	54	36	27	18	36	9	308	108	33.2	3.51
YEI 1-20	60	40	30	20	40	10	380	120	45.6	3.16
YEI 1-22	66	44	33	22	44	11	460	132	60.7	2.87
YEI 1-25	75	50	37.5	25	50	12.5	594	150	89.1	2.53
YEI 1-28	84	56	42	28	56	14	745	168	125	2.26
YEI 1-32	96	64	48	32	64	16	973	192	187	1.97
YEI 1-36	108	72	54	36	72	18	1231	216	266	1.75
YEI 1-40	120	80	60	40	80	20	1520	240	365	1.58
YEI 1-50	150	100	75	50	100	25	2375	300	712	1.26
Larger Than YEI 1-50 (see Note 1)	3 d	2 d	1.5 d	1 d	2 d	0.5 d	$l_{Fe} = b + c + f + \frac{a + e - d}{2} = 6 d$			

Note 1 — If larger YEI types are required, it is recommended that the ratios indicated in the last line of the table are maintained [see 5.4 of IS : 11794 (Part 1)-1986*]. However, it may be preferred to use YUI types [see Table 1 of IS : 11794 (Part 2/Sec 6)-1986*].

Note 2 — Double arrow indicates direction of rolling.

*Specification for laminations for transformers and indicators for use in telecommunication and electronic equipment:

Part 1 General requirements and tests.

Part 2 Preferred ranges of laminations, Sec 6 lamination type YUI - 1.